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| 10/620,633 | 07/15/2003 | Brian G. Payton | SVL920030074US1/3794P | 1713 |
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| IBM ST-SVL SAWYER LAW GROUP LLP 2465 E. Bayshore Road, Suite No. 406 PALO ALTO, CA 94303 | | | EXAMINER LONG, ANDREA NATAE | |
| | | | ART UNIT 2176 | PAPER NUMBER |
| | | | NOTIFICATION DATE 09/03/2008 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@sawyerlawgroup.com

| | | | |
|------------------------------|--------------------------------------|--------------------------------------|--|
| Office Action Summary | Application No. 10/620,633 | Applicant(s) PAYTON ET AL. | |
| | Examiner Andrea N. Long | Art Unit 2176 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 August 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 44-60 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 44-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/25/2008</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08/01/2008 has been entered.

Applicant's Response

In Applicant's Responses dated 08/01/2008, Applicant amended claims 44 and 48, claims 54-60 were added, and argued against all rejections previously set forth in the Office Action dated 05/09/2008.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 44 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Independent claim 44 contains the limitation “the grouping controlling the order in *which the first and second predicates are evaluated with respect to at least one unselected predicate of the query search condition*”. There is no mention in the specification sections cited by the Applicant (Applicant Remarks, dated 08/01/2008, page 9) or in the original specification as a whole that describes of “which the first and second predicates are evaluated with respect to at least one unselected predicate of the query search condition”.

If the examiner has overlooked the portion of the original specification that describes this feature of the present invention, then Applicant should point it out (by page number and line number) in response to this Office Action.

Claims 45-60 are rejected under 35 U.S.C. 112, first paragraph for fully incorporating the deficiencies of their base claim from which they depend.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 44-57, and 59-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mocek et al (US Patent 5924089), hereinafter “Mocek” in view of Rubinstein (US Patent 5721897), hereinafter “Rubinstein” in further view of Banning et al (US Patent 5421008), hereinafter “Banning” in further view of Jacopi et al (US Patent 5701456), hereinafter “Jacopi”.

For the convenience of the Applicant, the Examiner has pointed out particular references contained in the prior art(s) of record in the body of this action. Although the specified citations are representations of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. The Applicant should consider the entire reference(s) as applicable as to the limitations of the claims.

As to independent claim 44, Mocek teaches a method for creating a query search condition through a user interface (column 2 lines 5-15 – Mocek discloses a database management system that user a user interface to create a query condition), the method comprising:

displaying column names that are selectable for use in a predicate of the query search condition in a first display area of the user interface (Fig. 3E reference character 376, column 5 lines 1-13 – taught as the fields in the selectable database);

displaying column operators that are selectable for use in the predicate of the query search condition in a second display area of the user interface (Fig 3E reference character 378, column 5 lines 13-14 – taught as relational conditional operators);

receiving selection of one of the column names displayed in the first display area of the user interface (column 5 lines 1-13 – taught as user selecting a field);

receiving selection of one of the column operators displayed in the second display area of the user interface (column 5 lines 13-14 - taught as user selecting an operator). By receiving selection of a column name and of a column operator, Mocek therefore teaches receiving selection of at least two predicates in the query search condition. Mocek additionally teaches a third display area which in response to selection from the operator, additional values associated with the operator, conforms to the selected operator (Fig. 3E reference character 378 and 380,

Fig 3G reference character 395 - the format of the value boxes change according to the selection of the operator). Mocek additionally teaches wherein the first display area, the second display area, and the third display area are displayed together on the user interface (Fig 3E).

It is established above that Mocek automatically changes the value format according to a selection of an operator. However, Mocek fails to teach automatically generating a list of all column values that are selectable for use in the predicate of the query search condition based on the selected column name and the selected column operator; displaying the list of all the column values that are selectable for use in the predicate of the query search condition in a third display area of the user interface; and grouping predicates based on a user selection.

Rubinstein teaches a user interface for search documents that uses an automatically generated list of search terms based on a selection of an archive to implement in to a search query (column 3 lines 57-60, column 4 lines 15-22). Rubinstein discloses that by automatically generating a list of search terms prompts the user to search for information of interest without requiring the user to conceive search terms. It would have been obvious to one skilled in the art at the time the invention was made to have combined the query method of Mocek with the automatically generated list of search terms of Rubinstein to relieve the user from the burden of creating values, and instead permit the user to browse the relevant values on the basis of the automatically generated list of values.

Banning teaches receiving selection of at least two predicates in the query search condition; and grouping the selected predicates based on a user selection of a displayed grouping control (column 8 lines 6-12, column 30 lines 7-32 – user selects predicates to group together). It would have been obvious to one skilled in the art at the time the invention was made to have

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included the grouping of selected predicates of Banning with the query method of Mocek in view of Rubinstein to reduce and restrict the number of comparisons.

Jacopi teaches the grouping controlling the order in which the first and second predicates are evaluated with respect to at least one unselected predicate of the query search condition (column 2 lines 14-39). It would have been obvious to one skilled in the art at the time the invention was made to have combined the query method of Mocek in view of Rubinstein and the grouping of predicates of that of Banning with the controlling of the ordering of the predicates to indicate the order of relationships between predicates to eliminate the complexity of ordering of a large number of predicates.

As to dependent claim 45, Mocek in view of Rubinstein as discussed above teaches the receiving selection of one or more of the column values (column 3 lines 57-60, Rubinstein) displayed in the third display area (Fig 3E and 3G, Mocek) of the user interface.

As to dependent claims 46 and 47, Mocek teaches confirming selection of the selected column name, the selected column operator, and the one or more selected column values by receiving user input clicking a mouse button in the user interface (column 4 lines 25-26, Fig 3A - Mocek discloses that the user can click the next button or any of the tabs to move on, which is reasonably equivalent of a user confirmation).

As to dependent claim 48, Mocek teaches forming the predicate of the query search condition based on the selected column name, the selected column operator, and the one or more

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selected column values and adding the predicate to the query search condition (column 5 lines 16-20. Fig 3E reference character 382 – Mocek discloses the computer interprets the information entered above and displays a search condition); displaying query search condition and the predicate in a fourth area of the user interface as one of a plurality of displayed predicates of the query search condition (Fig. 3K), Mocek does not teach the selection of at least two predicates being from the displayed query search condition. Banning teaches the selection of at least two predicates being from the displayed query search condition (column 8 lines 6-12, column 30 lines 7-32 – user selects predicates to group together).

It would have been obvious to one skilled in the art at the time the invention was made to have combined the teachings of Mocek and Banning to allow for grouping of predicates which provides for processing of the predicates.

As to dependent claim 49, Mocek teaches updating a query model with the predicate of the query search condition (column 5 lines 16-20 – Mocek discloses the computer interprets the information entered above and displays a search condition);

displaying SQL code of the query model in a fifth display area of the user interface (Fig 3K, column 6 lines 31-40). While Mocek does not explicitly teach having all five display areas being displayed together in the user interface, he does disclose having all five display areas as well as displaying four out of the five display areas together. It is reasonable for one skilled in the art to have the fifth display area displayed with the other four display areas to display all useful information pertaining to the creation and execution of the query condition.

As to dependent claims 50, 51, 52, and 53, Mocek teaches wherein the database names are selectable from a pull down menu (Fig 3F reference character 374). While Mocek does not explicitly teach the column names, column operators, or column values being utilized in a pull-down menu format, it is reasonable to one skilled in the art that any number of pull-down menus could be incorporated or replace the existing scrollable menus of Mocek as a design choice or to simplify the look of the user interface.

As to dependent claim 54, Mocek teaches displaying the query search condition in a fourth display area of the user interface, the query search condition including a plurality of displayed predicates, at least one of the predicates based on the selections of the column names and the column operators (Fig. 3K, column 6 lines 31-40). Note the discussion above in claim 44 with regards to the teaching of displaying all four areas together. Mocek does not teach the selection of at least two predicates being from the displayed query search condition (column 8 lines 6-12, column 30 lines 7-32 – user selects predicates to group together).

It would have been obvious to one skilled in the art at the time the invention was made to have combined the teachings of Mocek and Banning to allow for grouping of predicates which provides for processing of the predicates.

As to dependent claim 56, Mocek teaches forming a query statement based on, at least in part, the query search condition and selections in the user interface. Mocek does not explicitly teach processing the query statement into a form defined by a query model.

Goldberg teaches processing a query statement into a form defined by a query model, the processing including:

using a plurality of content viewers to interface to an application that uses the user interface and to process the query statement into query information independent of a specific structure, including (column 5 lines 9-14);

using a particular one of a plurality of API-specific content viewers to interface with a particular GUI API used by the application, each API-specific content viewer usable with an associated one of a plurality of different available graphical user interface (GUI) APIs (column 5 lines 9-22); and

using a non-specific content view in communication with the API-specific content viewers to provide the query information (column 5 lines 9-22); and

using a model content provider to receive the query information and translate the query information into the form defined by the query model, the form including item provider objects that are instances of query model elements of the query model and that include query model relationships of the query model (column 5 lines 44-64).

It would have been obvious to one skilled in the art at the time the invention was made to modify the forming of a query statement to include the processing of the query statement of Goldberg to automate the generation of query objects to allow for portability between different DBMS servers.

As to dependent claim 57, Mocek teaches constructing a query statement. Mocek does not teach wherein each of the API-specific content viewers processes item provider objects provided by the model content provider for structures specific to the associated GUI API. Goldberg teaches wherein each of the API-specific content viewers processes item provider

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objects provided by the model content provider for structures specific to the associated GUI API (column 5 lines 44-64).

It would have been obvious to one skilled in the art at the time the invention was made to modify the forming of a query statement to include the processing of the query statement of Goldberg to automate the generation of query objects to allow for portability between different DBMS servers.

As to dependent claim 59, Mocek teaches constructing a query statement. Mocek does not teach using a model content provider to receive the query information. Goldberg teaches wherein using the model content provider to receive the query information and translator the query information into the form defined by the query model further comprises:

adding at least one proxy item provider object to the form to replace at least one reference to at least one other form defined by the query model (column 7 lines 14-49), and

reestablishing the at least one reference to the form defined by the query model after code is generated from the form (column 7 lines 14 to column 8 line 67).

It would have been obvious to one skilled in the art at the time the invention was made to modify the forming of a query statement to include the processing of the query statement of Goldberg to automate the generation of query objects to allow for portability between different DBMS servers.

As to dependent claim 60, Mocek teaches constructing a query statement. Mocek does not teach translating the query information into the form defined by the query model. Goldberg

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teaches creating the item provider objects dynamically as the query statement is formed (column 3 lines 14-25).

Claim 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mocek in view of Rubinstein in further view of Banning further view of Jacopi in further view of Goldberg et al (US Patent 6496833 B1), hereinafter “Goldberg” in further view of Roth (US Patent 5289567).

As to dependent claim 58, note the discussion of claim 56 above. Mocek teaches constructing a query statement. Mocek does not teach processing the query statement into the form in accordance with the query model by creating a tree structure. Goldberg teaches processing the query statement into the form in accordance with query model. Roth teaches selecting a query element of the query statement for modeling from a plurality of query elements in the query statement; identifying at least one type associated with the selected query element; defining a parent node representing the selected query element; defining a child node for the parent node for each of the identified at least one types; and examining each of the child nodes to determine one or more subtypes of the child nodes; defining a subtype child node of each child node for each of the determined subtypes; and using the defined parent node, child node, and subtype child nodes to create a tree structure representative of the selected query element (column 2 lines 22-37).

It would have been obvious to one skilled in the art at the time the invention was made to have combined the teachings of Mocek and Goldberg with that of Roth to provide for interactively querying a model in a manner which is time efficient and element precise.

Response to Arguments

Applicant's argument with respect to claim 44 has been considered but is moot in view of the new ground(s) of rejection.

Conclusion

The prior art made of record on Form PTO 892 and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrea N. Long whose telephone number is 571-270-1055. The examiner can normally be reached on Mon - Thurs 6:00 am to 3:00 pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doug Hutton can be reached on 571-272-4137. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Andrea Long
August 25, 2008

/Rachna S Desai/
Primary Examiner, Art Unit 2176